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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,680	10/03/2003	Ian A. Cody	JJK-0332 (P2002J101)	9978

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EXAMINER	
GRIFFIN, WALTER DEAN	
ART UNIT	**PAPER NUMBER**
1764	

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/678,680	CODY ET AL.	
	Examiner	Art Unit	
	Walter D. Griffin	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-56* is/are pending in the application.

4a) Of the above claim(s) *55 and 56* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/1/04, 7/16/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-54, drawn to a process for preparing a lubricating oil basestock, classified in class 208, subclass 89.

II. Claims 55 and 56, drawn to a lubricating oil basestock, classified in class 208, subclass 18.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product can be made by another and materially different process such as hydrotreating followed by solvent dewaxing.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Gerard Hughes on June 10, 2005, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-54. Affirmation of this election must be made by applicant in replying to this Office action. Claims 55 and 56 are

withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8, 10-12, 14-25, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/07538 A1 in view of LaPierre et al. (US 4,431,519).

The WO reference discloses a process for preparing a lubricating base oil. The process comprises hydrotreating a waxy feed such as an F-T product. The lower boiling fractions are then removed from wax fractions. The wax fractions are then subjected to catalytic dewaxing thereby obtaining a lubricating base oil product. The hydrotreating catalyst contains Group 6, 9, and/or 10 metals. Hydrotreating conditions include temperatures ranging from 250° to 400°C and pressures ranging from 0.5 to 20 MPa. The dewaxing catalyst comprises a molecular sieve such as ZSM-48 and a metal such as platinum. The catalyst is reduced before use. Dewaxing conditions include temperatures ranging from 200° to 500°C, pressures ranging from 10 to 200 bar (1000 to 20000 kPa), space velocities ranging from 0.1 to 10, and hydrogen to oil ratios ranging from 100 to 2000. See page 2, line 25 through page 6, line 8 and page 7, line 18 through page 10, line 16.

The WO reference does not disclose contacting the dewaxing catalyst with an oxygenate.

The LaPierre reference discloses a dewaxing process in which a lubricating oil and hydrogen contact a dewaxing catalyst at temperatures ranging from 550° to 1100°F (288° to 593°C) and pressures ranging from 100 to 3000 psig (689 to 20684 kPa), LHSV values ranging from 0.1 to 10, and a hydrogen to hydrocarbon mole ratio between 1 and 20. The catalyst is contacted with an oxygenate such as an alcohol or ether to increase the activity of the catalyst. This oxygenate is converted into oxygenated products and water. Therefore, the catalyst is also contacted with water. See column 1, line 64 through column 3, line 31.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of the WO reference by contacting the dewaxing catalyst with an oxygenate as suggested by LaPierre because the activity of the catalyst will be increased. One would contact the catalyst with the oxygenate for any time that is effective in achieving the result of increased catalyst activity.

Regarding the hydrotreating conditions, one having ordinary skill in the art at the time the invention was made would adjust such conditions in order to obtain an effectively hydrotreated feed.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/07538 A1 in view of LaPierre et al. (US 4,431,519) as applied to claim 1 above, and further in view of GB 2109402 A.

The previously discussed references do not disclose that the oxygenate is water.

The GB 2109402 reference discloses that the activity of zeolite catalysts used in dewaxing processes can be maintained by contacting the catalyst with water or a precursor of water such as an alcohol. See page 1, lines 62-87 and page 2, line 112 through page 3, line 10.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the teachings of the previously discussed references by using water as the oxygenate instead of the compounds disclosed by LaPierre as suggested by the GB reference because water performs equivalently to the alcohols disclosed by LaPierre and is less expensive than alcohols.

Claims 13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/07538 A1 in view of LaPierre et al. (US 4,431,519) as applied to claims 1, 2, 17, and 18 above, and further in view of Kresge et al. (US 5,837,639).

The previously discussed references do not disclose a hydrofinishing step.

The Kresge reference the hydrofinishing of hydrocarbon streams such as lube fractions using a catalyst that comprises MCM-41. Conditions include temperatures less than 350°C, pressures of 100 to 3000 psig, space velocities of 0.1 to 10 hr^{-1}, and hydrogen to hydrocarbon molar ratios ranging from 0.1 to 100. See column 15, line 53 through column 16, line 25.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of the previously discussed references by hydrofinishing the dewaxed stream as suggested by Kresge because a product with improved properties will result.

Claims 30-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/07538 A1 in view of LaPierre et al. (US 4,431,519) and Kresge et al. (US 5,837,639).

The WO reference discloses a process for preparing a lubricating base oil. The process comprises hydrotreating a waxy feed such as an F-T product. The lower boiling fractions are then removed from wax fractions. The wax fractions are then subjected to catalytic dewaxing thereby obtaining a lubricating base oil product. The hydrotreating catalyst contains Group 6, 9, and/or 10 metals. Hydrotreating conditions include temperatures ranging from 250° to 400°C and pressures ranging from 0.5 to 20 MPa. The dewaxing catalyst comprises a molecular sieve such as ZSM-48 and a metal such as platinum. The catalyst is reduced before use. Dewaxing conditions include temperatures ranging from 200° to 500°C, pressures ranging from 10 to 200

bar (1000 to 20000 kPa), space velocities ranging from 0.1 to 10, and hydrogen to oil ratios ranging from 100 to 2000. See page 2, line 25 through page 6, line 8 and page 7, line 18 through page 10, line 16.

The WO reference does not disclose contacting the dewaxing catalyst with an oxygenate and not disclose a hydrofinishing step.

The LaPierre reference discloses a dewaxing process in which a lubricating oil and hydrogen contact a dewaxing catalyst at temperatures ranging from 550° to 1100°F (288° to 593°C) and pressures ranging from 100 to 3000 psig (689 to 20684 kPa), LHSV values ranging from 0.1 to 10, and a hydrogen to hydrocarbon mole ratio between 1 and 20. The catalyst is contacted with an oxygenate such as an alcohol or ether to increase the activity of the catalyst. This oxygenate is converted into oxygenated products and water. Therefore, the catalyst is also contacted with water. See column 1, line 64 through column 3, line 31.

The Kresge reference the hydrofinishing of hydrocarbon streams such as lube fractions using a catalyst that comprises MCM-41. Conditions include temperatures less than 350°C, pressures of 100 to 3000 psig, space velocities of 0.1 to 10 hr^{-1}, and hydrogen to hydrocarbon molar ratios ranging from 0.1 to 100. See column 15, line 53 through column 16, line 25.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of the WO reference by contacting the dewaxing catalyst with an oxygenate as suggested by LaPierre because the activity of the catalyst will be increased. One would contact the catalyst with the oxygenate for any time that is effective in achieving the result of increased catalyst activity.

It also would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of the previously discussed references by hydrofinishing the dewaxed stream as suggested by Kresge because a product with improved properties will result.

Regarding the hydrotreating conditions, one having ordinary skill in the art at the time the invention was made would adjust such conditions in order to obtain an effectively hydrotreated feed.

Claims 53 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/07538 A1 in view of GB 2109402 A.

The WO reference discloses a process for preparing a lubricating base oil. The process comprises hydrotreating a waxy feed such as an F-T product. The lower boiling fractions are then removed from wax fractions. The wax fractions are then subjected to catalytic dewaxing thereby obtaining a lubricating base oil product. The hydrotreating catalyst contains Group 6, 9, and/or 10 metals. Hydrotreating conditions include temperatures ranging from 250° to 400°C and pressures ranging from 0.5 to 20 MPa. The dewaxing catalyst comprises a molecular sieve such as ZSM-48 and a metal such as platinum. Dewaxing conditions include temperatures ranging from 200° to 500°C, pressures ranging from 10 to 200 bar (1000 to 20000 kPa), space velocities ranging from 0.1 to 10, and hydrogen to oil ratios ranging from 100 to 2000. See page 2, line 25 through page 6, line 8 and page 7, line 18 through page 10, line 16.

The WO reference does not disclose contacting the dewaxing catalyst with an oxygenate such as water.

The GB 2109402 reference discloses that the activity of zeolite catalysts used in dewaxing processes can be maintained by contacting the catalyst with water or a precursor of water such as an alcohol. See page 1, lines 62-87 and page 2, line 112 through page 3, line 10.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the teachings of the WO 01/07538 A1 reference by contacting the catalyst with water as suggested by the GB reference because water the activity of the catalysts will be maintained.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-12, 14-25, and 27-29 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 38-47 of copending Application No. 10/678690. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to a process in which a hydrocarbon feed is hydrotreated, subjected to a separation step, and dewaxed with a catalyst

that has been contacted with an oxygenate. The claims in 10/678690 do not recite stripping as the technique used in the separation step. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the claims of 10/678690 by utilizing a stripping technique in the separation step because stripping is a conventional technique used to remove contaminants from hydrocarbons

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-12, 14-25, and 27-29 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 38-47 of copending Application No. 10/678684. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to a process in which a hydrocarbon feed is hydrotreated, subjected to a separation step, and dewaxed with a catalyst that has been contacted with an oxygenate. The claims in 10/678684 do not recite stripping as the technique used in the separation step. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the claims of 10/678684 by utilizing a stripping technique in the separation step because stripping is a conventional technique used to remove contaminants from hydrocarbons

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter D. Griffin whose telephone number is (571) 272-1447. The examiner can normally be reached on Monday-Friday 6:30 to 4:00 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Walter D. Griffin
Primary Examiner
Art Unit 1764

WG
June 20, 2005